

## **REMARKS**

In the Office Action dated July 29, 2003, claims 1-17, 23 and 27-29 are pending and under consideration. Claims 1, 4-17, 23 and 27-29 are rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to satisfy the written description requirement. Claims 27-29 are further rejected separately under 35 U.S.C. §112, first paragraph, as failing to satisfy the written description requirement.

This Response addresses each of the Examiner's rejections. Applicants therefore respectfully submit that the present application is in condition for allowance. Favorable consideration of all pending claims is therefore respectfully requested.

Regarding the rejection of claims 1, 4-17, 23 and 27-29 as allegedly failing to satisfy the written description requirement, it is observed that the claims are drawn to shuttle vectors wherein a selectable marker coding sequence is present, and the selectable marker confers a selectable phenotype on insect and bacterial cells transformed with the shuttle vector.

The Examiner contends that the disclosure is not descriptive of the complete structure of a representative number of species encompassed by the claims, allegedly because those skilled in the art cannot envision all the vectors encompassed by the claims based on the teachings of the specification. Specifically, the Examiner alleges that the vectors adequately described in the specification are limited to those containing the zeomycin resistance gene, which confers a selectable phenotype in both prokaryotic and insect cells. The Examiner also alleges that there is no structure-function analysis in the specification of the disclosed zeomycin resistance conferring protein, which would provide guidance on the selection of other resistance marker genes which may function in both insect and prokaryotic cells. Therefore, the Examiner concludes that the specification does not describe the claimed insect-

prokaryotic shuttle vectors in such terms so as to convey to those skilled in the art that Applicants had possession of the claimed shuttle vectors at the time of filing the present application.

In response, Applicants respectfully submit that a shuttle vector containing a selectable marker, which confers resistance to a bleomycin/phleomycin-type of antibiotic, is merely a preferred embodiment of the present application. Applicants should not be required to limit the claims to this preferred embodiment. Applicants respectfully submit that the specification describes that the shuttle vectors of the present invention can be adapted for use with a variety of antibiotic selection schemes. See page 67, lines 20-21, for example. The specification also illustrates how to make a shuttle vector containing a selectable marker suitable for selection in both insect cells and prokaryotic cells (see e.g., pages 23 and 27), and how to determine the genomic stability of the selection marker gene in transformed insect cells (see, e.g., pages 25-27). Based on the present teaching, those skilled in the art would understand that Applicants had possession of the shuttle vectors as presently claimed at the time of filing of the present application. As such, it is respectfully submitted that the claimed shuttle vectors are adequately described in the specification in compliance with the written description requirement of 35 U.S.C. §112, first paragraph. Withdrawal of the rejection is therefore respectfully requested.

Claims 27-29 are rejected under 35 U.S.C. §112, first paragraph, as allegedly failing to comply with the written description requirement.

Claims 27-29 are drawn to shuttle vectors containing an insect promoter comprising an IE2B element having at least 95% sequence identity to SEQ ID NO: 10 (claim 27), a sequence with at least 95% sequence identity to SEQ ID NO:1 from base pair 351-527 (claim

28), or a sequence with at least 95% sequence identity to SEQ ID NO:1 (claim 29) wherein the insect promoter is a functional promoter.

The Examiner contends that claims 27-29 are genus claims that encompass numerous variants having 95% identity to a recited sequence while remaining functional as a promoter. The Examiner states that, while the specification teaches shuttle vectors using an insect promoter having exact identity to the recited sequences, the specification does not adequately describe the complete structure of a representative number of species encompassed by the claims. Furthermore, the Examiner contends that the specification does not provide any structure-function analysis of promoter sequences with respect to the alterations that can be made without affecting the function of the promoters.

In response, Applicants respectfully submit that the promoters in the claimed shuttle vectors are adequately described in the specification, both structurally and functionally. In the first instance, the recitation "95% identity" to a specific sequence adequately describe the structure of the promoters. In addition, the specification illustrates how to determine the functionality, host range and efficiency of a promoter at pages 18-21, for example. As such, it is respectfully submitted that the shuttle vectors containing a promoter, as presently claimed, are adequately described in the specification in compliance with the written description requirement of 35 U.S.C. §112, first paragraph. Withdrawal of the rejection is therefore respectfully requested.

Claims 2-3 are objected to apparently because claim 1, which claims 2-3 depend upon, is rejected. It is believed that claims 2-3, if rewritten to incorporate all the delineations of claim 1, would be allowable.

In view of the foregoing amendments and remarks, it is firmly believed that the

subject application is in condition for allowance, which action is earnestly solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Frank S. DiGiglio', with a stylized flourish at the end.

Frank S. DiGiglio  
Registration No. 31,346

Scully, Scott, Murphy & Presser  
400 Garden City Plaza  
Garden City, New York 11530  
(516) 742-4343

XZ:ab/lf

Enc.: Revocation of Prior Power and Appointment of New Power.